

I/WE CLAIM:

1. A method of implementing an Active Connection Modify (ACM) for a connection in a communication system, the connection initially lying along an original connection between a source node and a destination node, the original connection conforming with at least one original traffic parameter, the method comprising the steps of:

establishing an alternate connection between the source node and the destination node;

attempting to implement the ACM along the original connection;

determining whether the connection along the original connection must be torn down; and

if the connection along the original connection must be torn down, switching the connection to the alternate connection before tearing down the connection along the original connection.

2. The method of claim 1 further comprising the step of initiating a timer, and wherein the step of determining whether the connection along the original connection must be torn down comprises determining whether the timer expires before receipt of an ACM-related message at the source node from another node along the original connection.

3. The method of claim 1 wherein the step of establishing an alternate connection establishes an alternate connection so as to conform with the at least one original traffic parameter.

4. The method of claim 1 wherein the step of establishing an alternate connection establishes an alternate connection so as to conform with at least one new traffic parameter corresponding to the ACM.

5. The method of claim 4 further comprising the steps of:

monitoring for receipt of a MODIFY REJECT message at the source node; and

if a MODIFY REJECT message is received at the source node, switching the connection to the alternate connection and tearing down the connection along the original connection.

6. The method of claim 1 wherein the ACM is one of a protected ACM and a protected and enabling ACM, a protected ACM being one where the connection is to be maintained even if only in conformance with the at least one original traffic parameter, a protected and enabling ACM being one where the connection must be adapted to conform to at least one new traffic parameter specified by the ACM; wherein if the ACM is a protected ACM the step of establishing an alternate connection comprises establishing the alternate connection in conformance with the at least one original traffic parameter, wherein if the ACM is a protected and enabling ACM the step of establishing an alternate connection comprises establishing the alternate connection in conformance with the at least one new traffic parameter, and wherein the method comprises the further step of:

determining whether the ACM is a protected ACM and whether the ACM is a protected and enabling ACM.

7. The method of claim 6 further comprising the steps of:

monitoring for receipt of a MODIFY REJECT message at the source node; and

if a MODIFY REJECT message is received at the source node and if the ACM is a protected and enabling ACM, switching the connection to the alternate connection and tearing down the connection along the original connection.

8. The method of claim 1 wherein the communication system employs Asynchronous Transfer Mode.
9. The method of claim 1 wherein the communication system employs Multiprotocol Label Switching.
10. An Active Connection Modify controller within a source node of a communication system, comprising instructions for executing the method of claim 1.
11. An Active Connection Modify controller within a source node of a communication system, comprising instructions for executing the method of claim 6.
12. A computer-readable medium comprising instructions for executing the method claim 1.
13. A computer-readable medium comprising instructions for executing the method claim 6.
14. A method of implementing an Active Connection Modify (ACM) for a connection in a communication system, the connection initially lying along an original connection between a source node and a destination node, the original connection conforming with at least one original traffic parameter, the method comprising the steps of:
 - receiving an ACM request from a user;
 - determining whether the ACM request includes a request that the connection be protected;
 - if the ACM request includes a request that the connection be protected, establishing an alternate connection between the source node and the destination node; and
 - attempting to implement the ACM along the original connection;

determining whether the connection along the original connection must be torn down;

if the connection along the original connection must be torn down and if the connection is to be protected, switching the connection to the alternate connection before tearing down the connection along the original connection.

15. The method of claim 14 further comprising the step of initiating a timer, and wherein the step of determining whether the connection along the original connection must be torn down comprises determining whether the timer expires before receipt of an ACM-related message at the source node from another node along the original connection.

16. The method of claim 14 wherein the step of establishing an alternate connection establishes an alternate connection so as to conform with the at least one original traffic parameter.

17. The method of claim 14 wherein the step of establishing an alternate connection establishes an alternate connection so as to conform with at least one new traffic parameter corresponding to the ACM.

18. The method of claim 17 further comprising the steps of:

monitoring for receipt of a MODIFY REJECT message at the source node; and

if a MODIFY REJECT message is received at the source node, switching the connection to the alternate connection and tearing down the connection along the original connection.

19. The method of claim 14 wherein if the connection is to be protected the ACM is one of a protected ACM and a protected and enabling ACM, a protected ACM being one where the connection is to be maintained even if only in conformance with the at least one original traffic parameter, a protected and enabling ACM being one where the connection must be adapted to conform to

at least one new traffic parameter specified by the ACM, wherein if the ACM is a protected ACM the step of establishing an alternate connection comprises establishing the alternate connection in conformance with the at least one original traffic parameter, wherein if the ACM is a protected and enabling ACM the step of establishing an alternate connection comprises establishing the alternate connection in conformance with the at least one new traffic parameter, and wherein the method comprises the further step of:

if the ACM request includes a request that the connection be protected, determining whether the ACM is a protected ACM and whether the ACM is a protected and enabling ACM.

20. The method of claim 19 further comprising the steps of:

monitoring for receipt of a MODIFY REJECT message at the source node; and

if a MODIFY REJECT message is received at the source node and if the ACM is a protected and enabling ACM, switching the connection to the alternate connection and tearing down the connection along the original connection.

21. The method of claim 14 wherein the communication system employs Asynchronous Transfer Mode.

22. The method of claim 14 wherein the communication system employs Multiprotocol Label Switching.

23. An Active Connection Modify controller within a source node of a communication system, comprising instructions for executing the method of claim 14.

24. An Active Connection Modify controller within a source node of a communication system, comprising instructions for executing the method of claim 19.

25. A computer-readable medium comprising instructions for executing the method claim 14.

26. A computer-readable medium comprising instructions for executing the method claim 19.